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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/542,223

07/14/2005

Olli Tiitu

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EXAMINER

GRAVINI, STEPHEN MICHAEL

ART UNIT

PAPER NUMBER

3749

MAIL DATE

DELIVERY MODE

10/15/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/542,223

Applicant(s)

TIITU, OLLI

Examiner

Stephen Gravini

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133) Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 July 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

The drawings are of sufficient quality to permit examination. Accordingly, replacement drawing sheets in compliance with 37 CFR 1.121(d) are not required in reply to this Office action.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Tiitu (WO 98/02700). The claims are reasonably and broadly construed, in light of the accompanying specification, to be disclosed in Tiitu as comprising:

a cylindrical rotatable drum **17** provided with a steam pipe system **18** comprising heat transfer elements, to be rotated with the drum, the heat transfer elements being detachable from and mountable on the drum, whereby material to be dried is fed to a first end of the drying apparatus as disclosed on page 4 lines 4-20 of that reference, the material being arranged to be discharged through a second end of the drying apparatus, wherein the heat transfer element is formed as a uniform packet of several longitudinal

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pipes 18¹-18ⁿ and connecting pipes 27 between them in such a way that the structure of the heat transfer element is formed self-supporting 27, 16 and this self-supporting packet is attached to the drum frame with fastening that allows heat expansion. Tiitu also discloses the claimed feature wherein the heat transfer element is formed as a sector-shaped packet in such a way that the heat transfer element several longitudinal pipes 31 at the edges of the element and of connecting pipes connecting them together, wherein there is a two-part support structure in connection with the heat transfer element in such a way that the longitudinal pipes 31 remain between the halves of the support structure, wherein an abrasion resistant plate is arranged between the heat transfer element and the drum on page 6 lines 5-22.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tiitu in view of Asman (US 4,417,661). Tiitu discloses the claimed invention as rejected above, except for the claimed abrasion resistant plate and protection plate. Asman, another drying apparatus, discloses an abrasion resistant plate and protection plate at column 2 line 54 through column 4 line 68. It would have been obvious to one skilled in the art to provide the teachings of Tiitu with the abrasion resistant plate and protection plate, as

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disclosed in Asman, for the purpose of minimizing wear and damage to a drying apparatus during operations and intended uses in the field of drying.

Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tiitu in view of Rasanen (US 6,415,527). Tiitu discloses the claimed invention as rejected above, except for the claimed feature wherein there is a steam pressure vessel at the end of the drum of the steam drier and at least one steam manifold at the end of the heat transfer element, and the steam manifold is connected to the steam pressure vessel with a connecting pipe wherein the diameter of the steam pressure vessel extends to the area of the heat transfer elements. Rasanen, another drying apparatus, discloses a feature wherein there is a steam pressure vessel at the end of the drum of the steam drier and at least one steam manifold at the end of the heat transfer element, and the steam manifold is connected to the steam pressure vessel with a connecting pipe wherein the diameter of the steam pressure vessel extends to the area of the heat transfer elements at column 3 line 53 through column 4 line 64. It would have been obvious to one skilled in the art to provide the teachings of Tiitu wherein there is a steam pressure vessel at the end of the drum of the steam drier and at least one steam manifold at the end of the heat transfer element, and the steam manifold is connected to the steam pressure vessel with a connecting pipe wherein the diameter of the steam pressure vessel extends to the area of the heat transfer elements as disclosed in Rasanen for the purpose of maximizing operability of a drying apparatus allowing ease of connectivity for intended uses in the field of drying.

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Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tiitu in view of Rasanen in further view of Asman. Tiitu in view of Rasanen discloses the claimed invention as rejected above, except for the claimed protection plate. Asman, another drying apparatus, discloses a protection plate at column 2 line 54 through column 4 line 68. It would have been obvious to one skilled in the art to provide the teachings of Tiitu in view of Rasanen with the protection plate at column 2 line 54 through column 4 line 68, as disclosed in Asman, for the purpose of minimizing wear and damage to a drying apparatus during operations and intended uses in the field of drying.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen Gravini whose telephone number is 571 272 4875. The examiner can normally be reached on normal weekday business hours (east coast time).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven B. McAllister can be reached on 571 272 6785. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SMG
October 12, 2007

